

FORM PTO-1449  
(MODIFIED)

U.S. Department of Commerce  
Patent and Trademark Office

ATTY. DOCKET NO.  
3399-Z

APPLICATION NO.  
10/803,195

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

APPLICANT

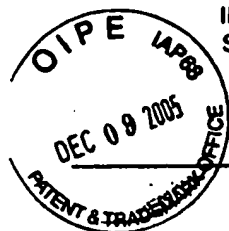
Richard J. Feldmann

FILING DATE

03/18/04

ART UNIT

1631



JSB <u>1</u>	Tettelin	Complete Genome Sequence of a Virulent Isolate of Streptococcus pneumoniae	Science 2001 July 20; 293: 498-506.
JSB <u>2</u>	Ferber	S. pneumoniae Genome Falls to Sequencers	Science 2001 July 20; 293: 410
JSB <u>3</u>	Ghigo	Natural conjugative plasmids induce bacterial biofilm development	Nature 412, 442 - 445 (26 Jul 2001)
JSB <u>4</u>	Gura	A silence that speaks volumes	Nature 404, 804 - 808 (20 Apr 2000)
JSB <u>5</u>	Vance	RNA Silencing in Plants-Defense and Counterdefense	Science 2001 June 22; 292: 2277-2280.
JSB <u>6</u>	Bergelson	Evolutionary Dynamics of Plant R-Genes	Science 2001 June 22; 292: 2281-2285.
JSB <u>7</u>	Staskawicz	Common and Contrasting Themes of Plant and Animal Diseases	Science 2001 June 22; 292: 2285-2289.
JSB <u>8</u>	Costerton	Battling Biofilms	Scientific American; July 2001;
JSB <u>9</u>	(no author cited)	Fighting RNA with RNA	Science 1999 Oct. 29; 286: 869
JSB <u>10</u>	Strauss	Candidate 'Gene Silencers' Found	Science 1999 Oct. 29; 286: 886
JSB <u>11</u>	Hamilton	A Species of Small Antisense RNA in Posttranscriptional Gene Silencing in Plants	Science 1999 Oct. 29; 286: 950-952.
JSB <u>12</u>	Lin	RNA interference: Policing rogue genes	Nature 402, 128 - 129 (11 Nov 1999)
JSB <u>13</u>	Roush	Biotechnology: Antisense Aims for a Renaissance	Science 1997 May 23; 276: 1192-1193.
JSB <u>14</u>	Voytas	Retroelements in Genome Organization	Science 1996 November 1; 274: 737-738.

Examiner

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Date Considered

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<b>FORM PTO-1449</b> U.S. Department of Commerce (MODIFIED) Patent and Trademark Office	ATTY. DOCKET NO. <b>3399-Z</b>	APPLICATION NO. <b>10/803,195</b>
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	FILING DATE <b>03/18/04</b>	ART UNIT <b>1631</b>

JSB <u>15</u>	SanMiguel	Nested Retrotransposons in the Intergenic Regions of the Maize Genome	Science 1996 Nov. 1; 274: 765-768.
JSB <u>16</u>	Adoutte	Small but mighty timekeepers	Nature 408, 37 - 38 (02 Nov 2000)
JSB <u>17</u>	Pasquinelli	Conservation of the sequence and temporal expression of let-7 heterochronic regulatory RNA	Nature 408, 86-89 (02 Nov 2000)
JSB <u>18</u>	Hammond	An RNA-directed nuclease mediates post-transcriptional gene silencing in Drosophila cells	Nature 404, 293-296 (16 Mar 2000)
JSB <u>19</u>	Ketting	A genetic link between co-suppression and RNA interference in C. elegans	Nature 404, 296-298 (16 Mar 2000)
JSB <u>20</u>	Eickbush	Molecular biology: Introns gain ground	Nature 404, 940-943 (27 Apr 2000)
JSB <u>21</u>	unisci.com	Quorum sensing molecules found for key lab bacteria	unisci.com; 11 June 1998
JSB <u>22</u>	Saitoh	Structural and functional conservation at the boundaries of the chicken $\beta$ -globin domain	EMBO J. 2000 19: 2315-2322.
JSB <u>23</u>	Bell	The Protein CTCF Is Required for the Enhancer Blocking Activity of Vertebrate Insulators	Cell 1999 98: 387-396
JSB <u>24</u>	Sharp	RNA Interference	Science 2000 March 31; 287: 2431-2433.

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JSB <u>25</u>	Grishok	Genetic Requirements for Inheritance of RNAi in <i>C. elegans</i>	Science 2000 March 31; 287: 2494-2497.
JSB <u>26</u>	Domeier	A Link Between RNA Interference and Nonsense-Mediated Decay in <i>Caenorhabditis elegans</i>	Science 2000 September 15; 289: 1928-1930.
JSB <u>27</u>	Ridley	Cancer: Molecular switches in metastasis	Nature 406, 466-467 (03 Aug 2000)
JSB <u>28</u>	Clark	Genomic analysis of metastasis reveals an essential role for RhoC	Nature 406, 532 - 535 (03 Aug 2000)
JSB <u>29</u>	Paro	Chromatin regulation: Formatting genetic text	Nature 406, 579-580 (10 Aug 2000)
JSB <u>30</u>	Rea	Regulation of chromatin structure by site-specific histone H3 methyltransferases	Nature 406, 593-599 (10 Aug 2000)
JSB <u>31</u>	Orphanides	RNA polymerase II elongation through chromatin	Nature 407, 471-475 (28 Sep 2000)
JSB <u>32</u>	Vinson	Macromolecular Ballet	Science 2000 May 26; 288: 1369
JSB <u>32.1</u>	Marx	Interfering With Gene Expression	Science 2000 May 26; 288: 1370-1372.
JSB <u>32.2</u>	Pennisi	Matching the Transcription Machinery to the Right DNA	Science 2000 May 26; 288: 1372-1373.
JSB <u>32.3</u>	Wente	Gatekeepers of the Nucleus	Science 2000 May 26; 288: 1374-1377.
JSB <u>32.4</u>	Gasser	A Sense of the End	Science 2000 May 26; 288: 1377-1379.
JSB <u>32.5</u>	Nasmyth	Splitting the Chromosome: Cutting the Ties That Bind Sister Chromatids	Science 2000 May 26; 288: 1379-1384.

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JSB <u>32.6</u>	Lewis	Like Attracts Like: Getting RNA Processing Together in the Nucleus	Science 2000 May 26; 288: 1385-1389.
JSB <u>33</u>	Ochman	Lateral gene transfer and the nature of bacterial innovation	Nature 405, 299-304 (18 May 2000)
JSB <u>34</u>	Nisbet	Palaeobiology: The realms of Archaean life	Nature 405, 625-626 (08 Jun 2000)
JSB <u>35</u>	Bell	Insulators and Boundaries: Versatile Regulatory Elements in the Eukaryotic Genome	Science 2001 Jan. 19; 291: 447-450.
JSB <u>36</u>	Hartl	Nuclear Assembly with k DNA in Fractionated Xenopus Egg Extracts: An Unexpected Role for Glycogen in Formation of a Higher Order Chromatin Intermediate	1994 J. Cell Biol. 124:235
JSB <u>37</u>	Baulcombe	Unwinding RNA Silencing	Science 2000 Nov. 10; 290: 1108-1109
JSB <u>38</u>	Wu-Scharf	Transgene and Transposon Silencing in Chlamydomonas reinhardtii by a DEAH- Box RNA Helicase	Science 2000 Nov. 10; 290: 1159-1162
JSB <u>39</u>	Myung	Multiple pathways cooperate in the suppression of genome instability in Saccharomyces cerevisiae	Nature 411, 1073-1076 (28 Apr 2001)
JSB <u>40</u>	Bulger	Comparative structural and functional analysis of the olfactory receptor genes flanking the human and mouse - globin gene clusters	PNAS 2000; 97: 14560- 14565.

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- JSB 41 Bulger Conservation of PNAS 1999; 96: 5129-  
sequence and structure 5134.  
flanking the mouse and  
human -globin loci: The  
-globin genes are  
embedded within an  
array of odorant  
receptor genes
- JSB 42 Doench siRNAs can function as Genes Dev. 2003 17: 438-  
miRNAs 442.
- JSB 43 Felsenfeld Controlling the double Nature421, 448 - 453 (23  
helix Jan 2003)
- JSB 44 Ball Portrait of a molecule Nature421, 421 - 422 (23  
Jan 2003)
- JSB 45 Collins A vision for the future Nature422, 835 - 847 (24  
of genomics research Apr 2003)
- JSB 46 Lau An Abundant Class of Science 2001 October 26;  
Tiny RNAs with Probable 294: 858-862.  
Regulatory Roles in  
Caenorhabditis elegans
- JSB 47 Kapranov Large-Scale Science 2002 May 3; 296:  
Transcriptional Activity 916-919.  
in Chromosomes 21 and  
22
- JSB 48 Hamilton Two classes of short EMBO J. 2002 21: 4671-  
interfering RNA in RNA 4679.  
silencing
- JSB 49 Baulcombe DNA Events. An RNA Science 2002 September  
Microcosm 20; 297: 2002-2003.

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JSB <u>50</u>	Banerjee	Control of developmental timing by small temporal RNAs: a paradigm for RNA-mediated regulation of gene expression	BioEssays 2002; 24: 119-129
JSB <u>51</u>	Volpe	Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi	Science 297: 1833-1837;
JSB <u>52</u>	West	Insulators: many functions, many mechanisms	Genes Dev. 2002 16: 271-288.
JSB <u>53</u>	Hall	Establishment and Maintenance of a Heterochromatin Domain	Science 297: 2232-2237
JSB <u>54</u>	Wolffe	Chromatin disruption and modification	Nucl. Acids. Res. 1999 27: 711-720.
<del>JSB <u>55</u></del>	<del>Bulger</del>	<del>Conservation of sequence and structure flanking the mouse and human -globin loci: The -globin genes are embedded within an array of odorant receptor genes</del>	<del>PNAS 1999; 96: 5129-5134.</del>
	Duplicate		
<del>JSB <u>56</u></del>	<del>Bulger</del>	<del>Comparative structural and functional analysis of the olfactory receptor genes flanking the human and mouse -globin gene clusters</del>	<del>PNAS 2000; 97: 14560-14565.</del>
	Duplicate		

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JSB <u>57</u>	Rastinejad	Tumor suppression by RNA from the 3' untranslated region of alpha-tropomyosin.	Cell. 1993 Dec 17;75(6):1107-17.
JSB <u>58</u>	Zeng	Both Natural and Designed Micro RNAs Can Inhibit the Expression of Cognate mRNAs When Expressed in Human Cells	Molecular Cell 2002 9: 1327-1333.
JSB <u>59</u>	Grishok	Genes and mechanisms related to RNA interference regulate expression of the small temporal RNAs that control C. elegans developmental timing.	Cell. 2001 Jul 13; 106(1):23-34.
JSB <u>60</u>	Wightman	Posttranscriptional regulation of the heterochronic gene lin-14 mediates temporal pattern formation in C. elegans,	1993, Cell 75: 855-862.
JSB <u>61</u>	Richards	Epigenetic Codes for Heterochromatin Formation and Silencing: Rounding up the Usual Suspects	Cell 2002 108: 489-500.
JSB <u>62</u>	Wu	25 years after the nucleosome model: chromatin modifications,	Trends in Biochemical Science; December, 2000; 25: 619-623
JSB <u>63</u>	Cuvier	Identification of a multicopy chromatin boundary element at the borders of silenced chromosomal domains	Chromosoma 2002 110:519-531

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JSB <u>64</u>	Hart	Facilitation of chromatin dynamics by SARs	Current Opinion in Genetics and Devel Vol 8, October 1998, pp 519-525
JSB <u>65</u>	Ha	A bulged lin-4/lin-14 RNA duplex is sufficient for Caenorhabditis elegans lin-14 temporal gradient formation	Genes Dev. 1996 10: 3041-3050.
JSB <u>66</u>	Feldmann	Control of Gene Expression by Connectrons	unpublished notes
JSB <u>67</u>	Tang	A transcriptional enhancer required for the differential expression of the human estrogen receptor in breast cancers	Mol. Cell. Biol. 1997 17: 1274-1280.
JSB <u>68</u>	Hirotsune	An expressed pseudogene regulates the messenger-RNA stability of its homologous coding gene	Nature 423, 91 - 96 (01 May 2003)
JSB <u>69</u>	Tufarelli	Transcription of antisense RNA leading to gene silencing and methylation as a novel cause of human genetic disease	Nature Genetics 34, 157 - 165 (01 Jun 2003)
JSB <u>70</u>	Dernburg	A Chromosome RNAissance	Cell 2002 111: 159-162.
JSB <u>71</u>	Yelin	Widespread occurrence of antisense transcription in the human genome	Nature Biotechnology 21, 379 - 386 (01 Apr 2003)

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JSB <u>72</u> Segal	Module networks: identifying regulatory modules and their condition-specific regulators from gene expression data	Nature Genetics 34, 166 - 176 (01 Jun 2003)
JSB <u>73</u> Carmichael	Antisense starts making more sense	Nature Biotechnology 21, 371 - 372 (01 Apr 2003)
JSB <u>74</u> Resnik	Functional and structural units in the Chromomere	Genetica 83:293-299, 1991.

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

JSB	①	LIPMAN, D.J. Making (Anti)sense of Non-coding Sequence Conservation. Nucleic Acids Research, 1997, Vol 25, No. 18, pages 3580-3583.
JSB	②	MATTICK, J.S. Non-coding RNAs: the Architects of Eukaryotic Complexity. EMBO Reports, 2001, Vol 2, No. 11, pages 986-991.
JSB	③	BAULCOMBE, D. A Silence That Speaks Volume. Nature, April 2000, Vol 404, pages 804-808
JSB	④	VANCE et al. RNA Silencing in Plants -- Defense and Counterdefense. Science, June 2001, Vol 292, pages 2277-2280.

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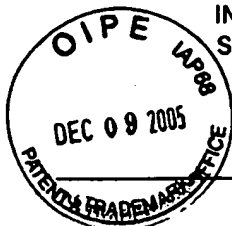
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

Duplicate	①	LIPMAN, D.J. Making (Anti)sense of Non-coding Sequence Conservation. Nucleic Acids Research, 1997, Vol 25, No. 18, pages 3580-3583.
Duplicate	②	MATTICK, J.S. Non-coding RNAs: the Architects of Eukaryotic Complexity. EMBO Reports, 2001, Vol 2, No. 11, pages 986-991.
Duplicate	③	BAULCOMBE, D. A Silence That Speaks Volume. Nature, April 2000, Vol 404, pages 804-806.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of  
Richard J. Feldmann  
Serial No. 10/803,195  
Filed: 03/18/04

Art Unit 1631

For: SYMMETRY RELATIONSHIPS BETWEEN PAIRS OF CONNECTRONS

SUPPLEMENTAL:  
INFORMATION DISCLOSURE STATEMENT - NO. 1

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Supplementing the "Information Disclosure Statement - No. 1" filed on December 9, 2005, a copy of  
JSB the International Search Report mentioned in the IDS was inadvertently not attached, and is being attached  
hereto.

Respectfully submitted,

*Jim Zegeer*

Jim Zegeer, Reg. No. 18,957  
Attorney for Applicant(s)

Attachments:  
International Search Report

Suite 108  
801 North Pitt Street  
Alexandria, VA 22314  
Telephone: 703-684-8333

Date: December 12, 2005

In the event this paper is deemed not timely filed, the applicant hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 26-0090 along with any other additional fees which may be required with respect to this paper.

/John S. Brusca/

06/09/2006